WRITTEN STATEMENT OF

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ENCOURAGING CAPITAL FORMATION IN THE TELECOMMUNICATIONS SECTOR

BEFORE THE HOUSE SUBCOMMITTEE ON DOMESTIC MONETARY POLICY, TECHNOLOGY AND ECONOMIC GROWTH SUBCOMMITTEE

COMMITTEE ON FINANCIAL SERVICES

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Chairman King, Ranking Member Maloney, and Members of the Subcommittee:

Thank you for inviting me to testify on the critical subject of encouraging capital formation in the telecom sector.

By way of background, I practiced law for 10 years in North Carolina, largely as a corporate lawyer. Among my principal work during that time, I served as outside General Counsel to a rural wireless company that raised over \$200 million in equity and debt and grew to service 26 markets. I also served as a securities lawyer on municipal finance offerings in North Carolina. In 1993, the Chairman of the Federal Communications Commission appointed me Chief of Staff, a position I held for 4 years. After leaving the FCC, I served as a consultant to a number of telecom and media concerns. In January of 2001, I began my current job as an analyst with Legg Mason where my principal mission is to evaluate the impact of government policy on telecommunications and media companies for institutional investors.

Today I would like to briefly discuss the state of the telecom industry. Then I will outline what I see as the three critical dynamics affecting investment in telecom and the three principal challenges facing the government as it seeks to encourage investment in what is clearly a critical sector for generating economic growth and consumer welfare gains for all Americans.

I. State of the Industry

For consumers and the economy, enormous gains...

For the American economy and consumer, the state of the telecom sector is far better than it was prior to the '96 Act. In wireless, choices have expanded, use is way up and prices are way down. The opportunity to communicate electronically through e-mails and instant messages, a phenomenon in its infancy six years ago, is now utilized by tens of millions daily. Long distance and international rates are down. The ability of businesses to send increasing amounts of data has skyrocketed as prices for long-haul transport have plummeted. Today, the majority of web surfing is done over broadband Internet access, a service that was only on the drawing board in 1996 A growing number of residential and small business consumers now have a choice of local telecom providers – with nearly 8 million now taking service from new competitors with millions of others substituting wireless for wireline.

Even with the price cuts in a number of sub-sectors, increased use has meant that telecom has enjoyed what other industries would consider a healthy growth in revenues. Telecom revenues are increasing as a percent of the GDP, still growing at approximately a 4 percent annual rate. Residential telecom spending as a percentage of disposable income is rising as consumers take advantage of new opportunities. From 1991 through 2Q 2001 the market capitalization of telecom services grew at a compound annual growth rate of 21% and for computing and communications components and equipment it was 23%. According to Fortune magazine, even last year, a year universally regarded as the worst ever for telecom, telecom enjoyed 7.5% growth in revenues, the 12th best out of 48 sectors Fortune measured.

... For investors, the most difficult times

But for investors in the sector, it is the worst of times. More than 100 start-up telephone companies have gone bankrupt in the United States in the last two years. I have seen estimates that the meltdown in the telecom sector has resulted in losses of over \$100 billion in contributed capital and \$2 trillion in stock market value. And the same Fortune magazine survey that had telecom in the top 12 in revenue growth had telecom 38th in profit growth, with a decrease in profits of 52.9%. And last week, a number of blue-chip companies in the sector, from RBOCs to cable, hit historic lows.

It is important to remember that this boom and bust cycle is similar to other cycles of investment in periods of massive growth and change. A similar boom and bust characterized investment in a number of critical industries in our country, from railroads in the mid-1800s to cars in the early part of the last century to the more recent cycle involving PC's and computer chips. Michael Milken recently recalled that in 1967 Merrill Lynch published a report "correctly predicting that the computer industry would be one of the great growth stories of the next generation. The report listed 25 leading companies in the hardware and software business. Industry revenues, of course, have grown tremendously since 1967 yet remarkably, 24 of the 25 companies disappeared or stopped selling computer and software products."

Telecom is likely to follow a similar pattern. It is of cold comfort to investors, but the telecom revolution, like earlier technology revolutions, is likely to yield far greater benefits to the general economy and consumers than it will to many investors. As George Gilder recently wrote "[1]ike the railroads that bankrupted a previous generation of visionary entrepreneurs and built the foundations of an industrial nation, fiber optic webs, data-centers, and wireless systems installed over the last five years will enable and endow the next generation of entrepreneurial wealth."

I agree. While we cannot expect to see the kind of extraordinary investment in telecom that characterized the first five years after the Telecom Act, the growth potential is still exceptional. Our country needs an appropriate level of investment to continue so that the economy and consumers can continue to benefit from improved communications networks and services. Therefore it is critically important that the government examine the question that you are raising today: how to encourage investment in the sector.

II. Key Telecom Investment Drivers: Competition, Growth Opportunities, and Innovation

Competition the greatest single investment catalyst

The simple, but sometimes forgotten, answer is that the most important way to encourage investment in the sector is to assure a competitive market. One of the best things the Congress ever did for the media sector was to pass the Program Access rules. Those rules enabled Direct Broadcast Satellite companies to gain access to a key input and therefore compete with cable. Subsequently, cable operators invested over \$55 billion to upgrade to digital and, as Robert Sachs, President and CEO of NCTA, recently noted, "[w]hat prompted this massive upgrade was competition from DBS."

The telecom sector is no different. In the four years prior to the passage of the '96 Telecom Act, regional Bell investment declined 2.4% annually. After the Telecom Act, there was an explosion of investments into new entrants, starting with \$5 billion in 1997 and increasing to \$22 billion by 2000. The Bells responded by increasing their own capital expenditures by nearly 11% annually during that period. And in 2001, when the CLECs' investments declined, so did the Bell investments.

Wireless similarly demonstrates how competition drives investment. When the 1994 spectrum auctions broke up the existing duopoly, investment by both incumbents and new entrants soared.

So any policy to encourage investment must recognize the need for competitive markets with a sufficient number of healthy competitors in order to succeed. Moreover, it is far too early to write off competition in telecom as an economic impossibility. For all the publicity over CLEC failures, competition has also had some notable successes. In Anchorage, Alaska, CLECs serve over 40% of the local market. In New York State, almost 20% of the lines are served by CLECs. In Texas, it's 18% of the lines.

Investment also requires opportunities for revenue and profit growth

But investment is also a function of the business growth opportunity. And here, the fundamental problems are in the market, not in government. The biggest problem in the sector is lack of new drivers of growth in revenues and profits. After the great data and wireless explosion of the 90's, the sector lacks a similar engine now. Further, the availability of wireless and data has cannibalized revenues that used to be the unchallenged province of the wired voice network. While that creates consumer welfare and business productivity gains, it creates an unappetizing picture for investors.

There is a limit to what government can do. None of us in this room is going to invent a killer application that will bring new revenues to the telecom networks and, in turn, lead to a new round of investment. Nonetheless, government can act to assure that when the opportunities are developed, investment will not be stifled.

Innovation drives biggest improvements in consumer gains but there is a tension between investment in innovations in the network and innovations at the edge of the network

While price competition gets the lion's share of the attention, and falling prices are often used as a measurement of whether there is competition, I believe that a greater source of economic and consumer welfare gains arises from product innovations that offer new services that inevitably provide competition to incumbent offerings. The data networks and wireless networks were not developed to provide direct price competition to the incumbent wired voice network but the new networks have had an enormous competitive affect.

Innovation is not limited to new entrants but history has demonstrated that incumbents need a competitive threat to deploy innovation. And if we look at the great innovative applications of the last decade -- email, web browsing, streaming audio and video, file sharing, instant messaging, e-commerce – none was invented by an incumbent. But it is also true that we could not take advantage of such applications if incumbents and others had not invested in network upgrades to speed the transport of the bits.

This tension between the need to invest in upgraded networks and the benefits of investing in innovations at the edge of the network is at the core of an important paper, written by two distinguished telecom thinkers, David Isenberg and David Weinberger, called "The Paradox of the Best Network." They point out that from the point of view of society and consumers, the best performing network would be one that delivered the most bits at the fastest speeds, was most open to new communications services, closed off the fewest futures, and promoted the most innovation. They note, however, that that kind of network is the hardest kind of network to make money running since its design reduces the transport function to a commodity while the real high-value added services are in the bits and the services at the edge of the network.

The authors suggest a variety of policy remedies, such as the forced separation of content and conduit, which I personally would not advocate. The paper, however, serves an important role in describing what I think is a tension between the different kinds of investment that the government needs to encourage: investment by large incumbents in maintaining and upgrading their networks and investment by a wide variety of companies -- from start-ups in garages to large international phone companies -- in innovations that will drive great leaps forward in terms of economic growth and consumer welfare gains.

This tension has, in my view, raised the technological risk factors for all telecom investments and is one of the reasons why all telecom stocks have plummeted, notwithstanding that the underlying growth in network traffic, as well as productivity gains due to new network efficiencies, remain robust. Investors are understandably nervous about investing in more and improved pipes in the ground whose value can be reduced by new innovations. But unless there are investments to upgrade the pipes, the benefits of other innovations will remain unrealized by our society. Government policy should not seek to eliminate this tension, which is simply a demonstration that the Schumpeter economics of creative destructive has arrived in telecom. Rather, policy should try to reflect that tension by balancing the needs to encourage innovation in and at the edges of the network.

In short then, the path to investment requires policies that encourage competition, allow for revenue growth and protect innovation in all parts of the network. This is easier said than done. Given its history, telecom is not a classic free market. Given economics dictated by huge fixed costs, minimal marginal costs and significant network effects, it will be more difficult for a truly competitive free market to develop in telecom compared with markets where large, initial capital investment is less critical.

III. The Policy Challenges Ahead

Government can help encourage investment if it faces up to three fundamental challenges: developing and implementing a balanced policy, rationalizing revenues, and making timely and certain decisions that the market can rely on in making its investments.

1. The Challenge of Developing and Implementing a Balanced Policy

In developing telecom policy in the Congress and at the FCC, the debates often revolve around the question of what policy will provide the most incentives for investment. But it turns out that the debate is not so much about investment as it is about who will have the incentives to invest: the incumbents or the new entrants; facilities-based providers or those

who integrate parts of existing networks and new networks; those who own transmission pipes or those who want to run applications and services over the pipes.

The truth, simple in concept but complicated is practice, is that a telecom sector that is healthy for the economy, consumers and investors requires that a broad spectrum of competitors have investment incentives. A policy that shuts out any part of the telecom value chain is a policy that will short-change our country.

Equality in regulation is not the primary goal; rather the goal is enable market forces that eliminate the need for regulation

Some suggest that a balanced policy requires equality in regulation. I do not think this is correct. This country often regulates similar services differently. Satellite and cable companies both offer multi-channel video but both are regulated differently. RBOCs and rural ILECs both offer local phone service but are regulated differently. AT&T and MCI in the 1980s and early 1990s both offered long distance service but were regulated differently. Moreover, the search for regulatory equality, in my opinion, distracts us from our primary goal, which is to create market forces that eliminate the need for regulation.

Policy needs to apply equal vigor to policy concerns of multiple parties

To help assure that those market forces exist, I believe that in any policy evaluation, we should make sure that we apply equal vigor in addressing the policy concerns of the whole spectrum of potential competitors. For example, the FCC has undertaken a series of inquiries that have at their core the question of whether existing regulations on the RBOCs and other incumbent LECs can be lifted. A significant rationale for these inquiries is that removing such regulation will create greater incentives for facilities-based competition.

There is nothing wrong with asking questions and determining if regulations can be lifted. But regulators should understand that asking questions is not an academic exercise. There is a cost created by the uncertainty in raising questions about major changes in policy. The market penalizes regulatory uncertainty, and the presence of open questions, even if well meaning, has the affect of deterring investments in the market.

Moreover, there is something wrong if we don't also remove regulations that create disincentives for new facilities-based providers. For example, as NTIA Administrator Nancy Victory correctly noted recently, "constraints on accessing public rights-of-way and tower sites may be inhibiting or least delaying broadband network construction." Some states, such as Michigan, Kansas and Missouri, have adopted rules to reduce local government regulation of rights-of-way. A state-by-state approach to this issue, however, is time consuming and is not the most efficient way to encourage new investment.

Policy has to accommodate a ramp up strategy by new entrants

Further, there must be an understanding that the market is not going to fund facilities-based competitors on a "build it and they will come" basis. To attract capital, one now has to have customers. Therefore, regulation must accommodate a ramp-up period in which new entrants have some ability to use parts of the existing networks to attract customers as they built out their own. This was the clear policy of the 1996 Act. It was based on a correct understanding of history. To create competition in long-distance, the government allowed AT&T's

competitors to use extensive parts of the AT&T network to win over customers and as they did so, they used the revenues to build their own facilities, which also created the collateral benefit of more wholesale opportunities. This successful effort to introduce competition in a previously monopolized market would not have been possible without a ramp-up strategy for new entrants. So to encourage investment, the policy has to provide the right balance for new entrants who need, at least temporarily, to use existing networks and incumbents who understandably want to capture the lion's share of value of their new investments in the network.

2. The Challenge of Rationalizing Revenues

A simple way of characterizing the central dilemma facing investors in telecom is that, for the past few years, too much money has been invested in the opportunity to collect too little revenues. Most of this, as noted above, relates to a historically typical pattern of over investment in a new field where supply and demand are both uncertain.

But in the telecom field, investors face an additional problem -- that a material portion of the revenues is regulated in a bewildering array of federal and state rules, accounting formulas, universal service requirements, and retail price regulation. Investors are nervous about investing in a sector where pricing signals are so often set in complicated proceedings in multiple forums. This multi-layered approach, a legacy of the deal struck almost a century ago between the U.S. Government and AT&T to assure universal service, has had the positive impact of driving up penetration and keeping rates low for local phone service. But in today's market, it has, in my opinion, lead to a system that depresses competition and innovation.

Retail rate regulation deters investment and if wholesale regulation works, retail regulation is unnecessary

I recognize that there are complex legal, political and economic issues involved here. But I also think the inexorable march of wireless and data should lead us to at least ask the question of whether it is time to begin eliminating all retail phone regulation over some period of time. Today we regulate in detail both wholesale services (including unbundling and interconnection) and retail services. If we are doing the right job on the wholesale level, (and the recent announcement of WorldCom that it will be able to compete in the local market in at least 32 states may provide an example of how wholesale regulation can work to generate retail competition) the retail regulation is at best duplicative and at worst, counterproductive. Eliminating the retail regulation would, in my opinion, encourage investment in competitive providers and would, over time, lead to enormous productivity and consumer welfare gains. We should be clear that such deregulation might also in the short-term in some areas lead to higher prices. Over time, however, I think that such price increases would lead to increased investments in new service providers and that competition will lead to improved services for consumers.

I would note that we as a country pre-empted state retail regulation of wireless phones in the mid-90's and resisted calls to regulate the retail rates of data service. Both those sectors have enjoyed greatly improved service and price cuts. It is critical to note, however, that in both cases government policies and market forces had created vibrant competition. We should be exploring whether we are approaching that point in wired services.

Universal service reform is critical to giving market the transparency necessary for efficiency and investment

A necessary component to any such rationalization would be universal service reform. Obviously, there needs to be a restructuring of the method for distributing funds for universal service to make sure that the vast majority of Americans, including in high-cost rural areas, stay connected, as they are today. There needs to be a simpler way to determine where subsidies need to go, and in what amounts. There are clearly parts of the country where subsidies (whether implicit or explicit) can be reduced and rates increased without any reduction in subscribers. This would create a better business investment climate in these markets, with the business case structured less by regulation and more by market forces.

There also needs to be a simpler and more sustainable way to collect the funds. The FCC is currently reviewing whether to replace the current method of collecting a percentage of each carrier's net interstate and international telecom services billings with an assessment on connections to the network. Without commenting on a number of details that need to be thought through, I would note it is likely that such as system will become even more important in the future. We believe that service providers will increasingly bundle numerous products. Assessments applied against a service will be difficult to account for and will create incentives to engage in accounting manipulations that ultimately hurt the market. Assessments applied against a connection, on the other hand will give the market the kind of transparency that leads to more efficient markets and an improved investment climate.

III. The Challenge of Making Timely and Certain Decisions.

It is a simple but critical truth that a decision delayed is investment denied. Further, any decision has to be considered final for the financial markets to invest on the basis of that decision.

Giving the FCC deadlines works

One of the best things Congress did in the '96 Act was something that at the time I thought was one of the worst things: it set very strict and certain time limits on how long the Commission had to finish the scores of rulemakings Congress mandated. I frankly thought it would be impossible to meet those deadlines. But the Chairman made it very clear to the other Commissioners and the staff that he would not tolerate missing any of the deadlines. The staff responded with a great spirit of professionalism and public service, a spirit that has long characterized the FCC and continues today. In those months immediately following the Act's passage, the staff worked extraordinarily hard and as a result, the Commission met every deadline.

The Judicial Process, where possible, should be expedited

Unfortunately, the FCC was only part of the equation. Every major Commission decision was appealed, as should be expected whenever the Commission decides a contentious issue with millions, and sometimes billions, of dollars at stake. And the courts are under no mandate to render their decisions within any set period of time. So today, some of the key issues Congress correctly wanted decided quickly are still unresolved. For example,

Congress gave the FCC six months to decide the critical question of how to define "cost" for the purposes of determining the price at which incumbent phone companies would be required to sell its unbundled network elements. The FCC economists and the rest of the staff poured through thousands of pages of dense economic analysis and came out with the Commission's answer within the six-month deadline. Appeals immediately followed, and now, more than six years after the Act's passage, the Courts have still not finished their determinations of whether the Commission's decision was correct under the law.

And it is not just the FCC decisions that were subject to appeal. Almost every, if not every, major state Public Utilities Commission decision was also appealed.

This judicial process ultimately led to great confusion and uncertainty in the marketplace as to what the rules are concerning pricing. While there were many things that contributed to the collapse in investor interest in the telecom sector, the ongoing battles over what the rules are did not help encourage investment and were among the many contributing factors to investors' disillusionment.

We do not have to sacrifice our commitment to due process or our belief in a federal system to improve the current system. Just as Congress should not be afraid to give the FCC strict timetables, it can take actions to improve the timeliness and certainty of key decisions. For example, it could, as it did with appeals of the FCC decisions on RBOC in-region long-distance applications, put all the appeals of Commission decisions in the Court of Appeals for the D.C. Circuit, thus limiting forum shopping and providing a more consistent and experienced administrative law perspective on Commission decisions.

Resolve competitive disputes faster

A second example of how delay hurts investment is the treatment of disputes between competitors and incumbents. The Commission is to be commended for setting up a "rocket docket" that expedites resolution of such disputes. And the current Chairman, Michael Powell, is clearly correct in his view that the current limit on the amount of fines for failure to comply with the law is not a sufficient incentive to discourage unlawful behavior. But problems persist. Let me provide an example to illustrate the problem. A facilities-based provider was having problems enforcing the reciprocal compensation terms of its interconnection agreement with Verizon South (formerly GTE) in Virginia. The competitor began a proceeding in June 2000. In September, the proceeding was split into a liability phase and a damages phase. The parties completed their briefings on the liability phase on July 20, 2001. If the competitor is successful at that phase, then it will have to go through a damages phase, with further discovery and briefing. In short, the new entrant will have to wait at least two years before it has any chance of recovering the disputed amounts and even then, it's subject to judicial review.

While we must provide due process to all parties, we must recognize that such a playing field creates enormous disincentives to invest in new competitors, including facilities-based competitors. There is a better way. As an example, let me note the process agreed to by Covad and SBC as part of a litigation settlement. The parties agreed that rather than pursue disputes at the FCC or state PUCs, the parties would follow a specified executive escalation process and if that is not successful, a binding arbitration process. The decisions are binding across SBC's entire region. As a result, disputes that could take years in a dozen forums are resolved within a matter of months in one forum.

Don't let a process tie up investment capital

A third example of delay hurting investment is the NextWave case. This is not the time to review the long, tortured Odyssey of that spectrum, an Odyssey likely to take as long as the voyage of Homer's hero after the Trojan War. And I believe there are a lot of legal reasons to be glad that the Supreme Court will decide the important questions raised in the litigation.

But from an investment perspective, we face a ludicrous and painful situation. We have a critical industry, wireless, that is starved for capital to invest in capital upgrades for new and improved services. While the FCC recently took the appropriate action and returned most of the down payment money, we essentially still have \$16 billion in potential capital for the wireless industry will likely be tied up for several more years. This is no small thing. S&P, for example, said that despite the down payment being returned, it was keeping the same credit rating and outlook status for Verizon, "because of the uncertainty regarding Verizon's ultimate obligation to pay the total \$8.7 billion it bid in the auction."

If this were a private contract dispute, I could understand the government taking the position that the auction "winners" (and I use that term in the technical sense only) must stay on the hook for their prior commitments until the end of the litigation. But from the perspective of encouraging wireless companies to invest in improved service and technologies, what public purpose is served by tying up billions bid in 2001 for spectrum that the government is unlikely to be able to deliver to the companies until 2004, or beyond?

I'm sure there are many other tales of decisions delayed that have led to investment denied. In fact I am quite sure that every industry in the telecom sector, would have its own story.

I think the bottom line is clear: don't hesitate to give FCC deadlines; deal with judicial problems by limiting venues, use alternative dispute resolution to speed up competitive disputes and don't allow a process to tie up investment capital.

Conclusion

Again, let me thank the Committee for investigating investment in the telecom sector. The telecom sector has made enormous contributions to our economic performance. If government develops a balanced policy to encourage investment in all parts of the network, rationalizes regulation to allow more market based signals and facilitates faster decisions, it will encourage investment and the sector will again make great contributions.